REMARKS

The present application was filed on February 2, 2001 with claims 1 through 26. Claims 1 through 26 are pending in the above-identified patent application, prior to entry of the present amendment. Claims 1, 10-16, 20 and 23 are proposed to be amended herein. Claims 27-29 are proposed to be added.

In the Office Action, the Examiner rejected claims 13-14, 16-17 and 23-25 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. In addition, the Examiner rejected claims 1, 10, 15 and 20-26 under 35 U.S.C. §102(b) as being anticipated by Muller et al. (United States Number 6,873,630). The Examiner indicated claims 2-9, 11-14 and 16-19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

Formal Rejections

The Examiner rejected claims 13-14, 16-17 and 23-25 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention. In particular, the Examiner identified a number of formal defects in these claims. Claims 13, 16 and 23 have been amended in accordance with the Examiner's suggestions. Applicants respectfully request the withdrawal of the rejection under section 112.

Prior Art Rejection

The Examiner rejected independent claims 1, 10, 15 and 20-26 under 35 U.S.C. §102(b) as being anticipated by Muller et al. Muller et al. discloses an Ethernet architecture that enables the transmission and receipt of data by striping individual Ethernet frames across a plurality of logical (parallel) channels. See, Abstract. A frame is divided into frame bytes, referred to as "mini-frames," that are distributed in a round-robin fashion on the plurality of channels. Each "mini-frame" is separately framed and encoded for transmission across its channel.

The Examiner asserts that Muller teaches a frame sequencing method "enforced by providing multiple different codes or symbols to represent the period between frames (e.g., the Inter-Packet Gap or IPG)." The frame sequencing method

allows a receiver to synchronize the multiple channels by monitoring the codes or symbols received during each gap.

As set forth in Col. 13, lines 47-53:

> Each mini-frame in FIGS. 5A-5D is preceded by an *identical* Idle symbol (e.g., Idle1 before the first packet). Illustratively, after each successive packet is conveyed a different Idle symbol is used for the inter-packet gap. Thus, in the embodiment of FIGS. 5A-5D a coding scheme is adopted in which a minimum of four different Idle symbols are required.

Thus, a data frame is divided into mini-frames, and transmitted across a plurality of parallel channels in a round-robin fashion. All of the mini-frames in a given frame have the *same* idle symbol. The stated purpose of the idle symbol is to facilitate the reconstruction of a complete frame at the receiver, referred to as "sequencing." Muller refers to the different Idle codes as "sequencing information signaled between packets." Col. 13, line 66, to col. 14, line 1. The Idle codes merely allow all of the mini-frames in a given frame to be identified.

Thus, Muller is teaching a *sequencing* method and **not** a *frame delineation* method. The Idle codes of Muller may arguably delineate "mini-frames," but since all mini-frames in a given frame have the *same value*, these Idle codes do not "identify a transition point between said respective data frame and a subsequent control portion," as required by each independent claim.

Muller further notes that "the IPG between a first MAC frame and a second MAC frame may be marked by IdleX, the IPG between the second and third frames may be marked by IdleX+1, etc." See, col. 10, lines 62-65. Muller, however, does not disclose or suggest that a synchronization pattern for a particular frame can identify a transition point between said respective data frame and a subsequent control portion, as required by each independent claim.

In addition, as discussed further below regarding the patentability of new claim 27, and as clearly demonstrated in FIG. 2 of Muller, the Idle codes discussed above are only used when a frame is divided into mini-frames and transmitted in a parallel manner using the parallel channels 208, 212. Muller does not use such Idle codes when a

complete data frame is transmitted on a single channel on the bottom branch of FIG. 2. Applicants submit that this is further evidence that Muller is limited to a sequencing method. The preamble portions of independent claims 1 and 10 are directed to *frame delineation* methods. It is noted that the techniques of the present invention can also be used for byte delineation.

Thus, Applicants respectfully request withdrawal of the rejection of each independent claim under section 102(a).

New Claims

New claims 27-29 has been added to more particularly point out and distinctly claim various features of the invention, consistent with the scope of the originally filed specification, in order to give applicant the protection to which he is entitled. No new matter is introduced.

Support for new claim 27 can be found in the original specification, for example, in FIGS. 4 and 7, and the corresponding textual discussion. Claim 27 is dependent on independent claim 1 and is therefore patentably distinguished over Muller because of its dependency from independent claim 1 for the reasons set forth above, as well as other elements this claim adds in combination to its base claim. In addition, as clearly demonstrated in FIG. 2 of Muller, the Idle codes discussed above are only used when a frame is divided into mini-frames and transmitted in a parallel manner using the parallel channels 208, 212. Muller does not use such Idle codes when a complete data frame is transmitted on a single channel on the bottom branch of FIG. 2. Applicants submit that this is further evidence that Muller is limited to a sequencing method.

Support for new claims 28 and 29 can be found in the original specification, for example, in the Title, at page 1, line, 12, page 3, line10, and page 10, lines 20-21. Claim 28 and 29 are dependent on independent claim 1 and 10, respectively, and are therefore patentably distinguished over Muller because of their dependency from independent claims 1 and 10 for the reasons set forth above, as well as other elements these claims add in combination to their base claim. In particular, Muller clearly discloses the use of 8B/10B encoding of the data, which yields a 25% overhead. See, e.g., Col. 7, lines 45-50. It is well known that 8B/10B block codes inherently provide frame delineation. See, e.g., page 2, lines 2-4 of the present application. Thus, when

using such 8B/10B block coding in Muller, there would be no motivation to use the synchronization pattern of the present invention in the IPG. Applicants again submit that this is further evidence that Muller is limited to a sequencing method.

Allowance of claims 27-29 is believed to be warranted.

Dependent Claims

The Examiner has already indicated claims 2-9, 11-14 and 16-19 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

All of the pending claims following entry of the amendments, i.e., claims 1-29, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

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